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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,205	11/27/2000	Gregory Zoller	CSCO-71519.US.P	7874

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EXAMINER

HOANG, PHUONG N

ART UNIT	PAPER NUMBER
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2194

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/724,205

Applicant(s)

ZOLLER ET AL.

Examiner

Phuong N. Hoang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 - 11, 13, 15, 17 - 20, 22, 24 - 27, and 29 - 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 - 11, 13, 15, 17 - 20, 22, 24 - 27, and 29 - 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 2 – 11, 13, 15, 17 – 20, 22, 24 – 27, and 29 – 37 are pending for examination.

Claim Objections

2. Claims 4 and 26 are objected to because of the following informalities: they depend on the canceled claim 1. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2 – 10, 24 – 27, and 29 - 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The following terms lack proper antecedent basis:
 - i. said exception – claim 27;
 - ii. said processor – claim 31;

- b. The claims language is not clearly understood:
 - iii. As to claims 3 and 31, lines 15 – 17, it is not clearly understood what “a single process” and “directly” mean, and it is conflicted with the rest of the claim that the process of Perl program access to distributed object via CORBA.
 - iv. As to claims 4 and 26, examiner treats the claims depending on independent claim 3.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 2 – 11, 13, 15, 17 – 20, 22, 24 – 27, and 29 – 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nevarez, US patent no. 6,609,158 in view of Goldberg, US patent no. 6,496,833.**

3. **As to claim 20**, Nevarez teaches a computer system, means for providing communication between a Practical Extraction Report Language (PERL) program and a distributed object comprising the steps of:

means for accessing a request from a PERL program code specifying the distributed object (Perl access objects, col. 9 lines 61 – 65 and col. 11 lines 57 – 60);

means for accessing said distributed object via a CORBA and means for translating a call from the PERL program (language adapter maps PERL program to a form recognized by core that converts Perl program into object model adapter 230, abstract and col. 7 lines 25 – 45 and col. 9 lines 62 – col. 10 lines 20) to a format substantially compliant with the mean for accessing the distributed object via a Common Object Request Broker Architecture (distributed objects including CORBA); and

b) means for translating a response from the call to a format substantially compliant with the Practical Extraction Report Language (adapter maps the result to Perl language, col. 11 lines 58 – col. 12 lines 5) and for passing the translated response to said PERL program code (passing result pack to Perl interpreter, col. 9 lines 40 – 60 and col. 11 lines 58 – col. 12 line 5) wherein the PERL program code directly accesses the distributed object.

Nevarez silents on the step of means bundled with the PERL program. However, Nevarez teaches that the language adapter is used for translating the Perl program (col. 4 lines 34 – col. 5 lines 15 and col. 9 lines 62 – col. 10 lines 20).

Goldberg teaches the step of the client access to the distributed object and the application is implement on same node (the client and server can be implemented on a

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one or more computers, col. 4 lines 35 – 45, col. 5 lines 5 – 15, and col. 7 lines 30 – 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Nevarez and Goldberg's system because Goldberg's implementation a system on a single node would make more sense to bundle the language adapter with the Perl program for quickly communication.

4. **As to claim 22**, Nevarez teaches wherein the means for accessing and translating the call from the PERL program comprises the step of means for converting a Perl data structure into a form which is substantially compliant with a program which accesses the distributed object via the Common Object Request Broker Architecture (adapter converting Perl into a form which is compliant to CORBA object model, col. 9 lines 9 lines 61 – col. 10 lines 20 and 7 lines col. 40 - 65).

5. **As to claim 31**, Nevarez teaches a computer system comprising a processor coupled to a computer readable medium the computer readable medium having stored thereon program instructions for allowing a Practical Extraction Report Language (PERL, col. 9 lines 40 - 67) program to communicate with a distributed object via Common Object Request Broker Architecture (CORBA, col. 10 lines 1 – 10 and col. 7 lines 25 - 65), said instructions comprising the steps of:

a PERL application program (perl, col. 9 lines 40 – 65);

an adaptor module (adapter, col. 10 lines 5 – 20) that is able to translate a request from the PERL application program for use by the program;

wherein said PERL application program, the program, and the adaptor module execute in a single process on the processor (inherent), and wherein the process is able to directly access said distributed object.

Nevarez does not explicitly teach the step of a client stub generated from a standard CORBA implementation and able to access the distributed object via CORBA. However, Nevarez teaches the adapter for accessing to the distributed objects via CORBA (col. 10 lines 5 – 20 and col. 7 lines 26 – 50).

Goldberg teaches the step of the client stub (IDL client stub code 506, col. 7 lines 30 – 60).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Nevarez and Goldberg's system because Goldberg's stub code would be acted as the program that enables the communication between the Perl program and the distributed objects.

6. **As to claim 32**, Nevarez teaches the step of the process further comprises a PERL XS (PERL-EXT, fig. 2) generated adapter code providing mappings from a PERL programming language to a C programming language.

7. **As to claim 33**, Nevarez teaches the step of the adapter module is written in a C programming language (C, col. 9 lines 60 – 67).

8. **As to claim 34**, Goldberg teaches the step of client stub is written in a C programming language (C, col.7 lines 30 – 50).
9. **As to claim 11**, Nevarez teaches the step of:
 - a. accessing a request from a PERL program code specifying the distributed object (Perl access objects, col. 9 lines 61 – 65 and col. 11 lines 57 – 60);
 - b. an adapter program for translating the Perl program (language adapter maps PERL program to a form recognized by core that converts Perl program into object model adapter 230, abstract and col. 7 lines 25 – 45 and col. 9 lines 62 – col. 10 lines 20) to a format substantially compliant with the a program;
 - c. the program making a call to access the distributed object via the Common Object Request Broker Architecture (adapter 228 make calls to object model adapter which manages the object models, col. 10 lines 5 – 20);
 - d. receiving a response from the call in the step c) (receiving the result, col. 11 lines 58 – col. 12 lines 5);
 - e. translating the response to a form which is substantially compliant with the Practical Extraction Report Language (adapter mapping the result, col. 10 lines 5 – 20); and
 - f. passing the translated response from the step e) to the PERL program (passing result pack to Perl interpreter, col. 9 lines 40 – 60 and col. 11 lines 58 – col. 12 line 5).

Nevarez does not explicitly teach the adapter program is bundled with the Perl program and does not refer the program to be the client stub bundled for the Perl program. However, Nevarez teaches that the language adapter is used for translating the Perl program (col. 4 lines 34 – col. 5 lines 15 and col. 9 lines 62 – col. 10 lines 20).

Goldberg teaches the step of the client stub for provide interface to the ORB of CORBA architecture (col. 7 lines 30 – 50), and the client access to the distributed object and the application is implement on same node (the client and server can be implemented on a one or more computers, col. 4 lines 35 – 45, col. 5 lines 5 – 15, and col. 7 lines 30 – 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Nevarez and Goldberg's system because Goldberg's implementation a system on a single node would make more sense to bundle the language adapter and the client stub with the Perl program for quickly communication.

10. **As to claim 13**, Nevarez teaches the step of wherein the distributed object is located on a remote computer system (remote, col. 6 lines 45 – 50 and col. 9 lines 39 - 50).

11. **As to claim 15**, Nevarez modified by Goldberg teaches the step of converting a data structure (adapter maps, col. 10 lines 5 – 20) into a form that is substantially compliant with the data structures of the client stub.
12. **As to claim 17**, Nevarez teaches the step of converting a data structure into a form which is substantially compliant with the Practical Extraction Report language (return the result to Perl, col. 11 lines 58 – col. 12 lines 5).
13. **As to claim 18**, Goldberg teaches the step of or a plurality of objects described in an Interface Definition Language (IDL, col. 7 lines 30 – 60), providing a corresponding plurality of translations.
14. **As to claim 19**, Nevarez teaches the step of wherein the program comprises a module generated by Practical Extraction Report Language External Subroutine (PERL-EXT, fig. 2).
15. **As to claim 3**, this is a method claim of claim 11. See rejection for claim 11 above.
16. **As to claims 2 and 4**, Nevarez teaches the step of an adapter (adapter, col. col. 9 lines 58 – col. 10 lines 20, and col. 7 lines 40 - 65) program converting a data

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structure specified by the PERL request into a form which is substantially compliant with a CORBA program.

17. **As to claim 5**, Nevarez does not explicitly teach the step of wherein the adapter program is written in a first programming language (fig. 2 and col. 9 lines 58 – col. 10 lines 20) and the PERL application is written in second programming language (Perl language, fig. 2), the first and the second programming languages being different.

18. **As to claim 6**, Nevarez teaches the step of wherein the adapter program is substantially compliant with the C programming language (adapter is in C/C++, fig. 2 and col. 9 lines 58 – col. 10 lines 20).

19. **As to claim 7**, see rejection for claim 13 above.

20. **As to claim 8**, see rejection for claims 17 above.

21. **As to claim 9**, Goldberg teaches the step of for a plurality of objects described in an Interface Definition Language (IDL), providing a corresponding plurality of translations (IDL, col. 7 lines 40 – 55).

22. **As to claim 10**, Nevarez teaches the step of the PERL program accessing user information over a number of databases (database, col. 8 lines 20 – 35) by connecting to a server via the CORBA.

23. **As to claims 24 and 25**, Nevarez teaches the step comprising of an adapter program that performs memory management of input and output parameters of the PERL program (parameters will be passed back to Perl, col. 9 lines 50 – 60).

24. **As to claims 26 and 27**, Goldberg teaches the step of adapter program handling an exception (If an error has occurred, exception information generated by the server or by the ORB is returned. An object adapter server, col. 7 lines 50 – 63).

25. **As to claims 29 and 30**, see rejection for claim 24 above.

26. **As to claim 35**, Nevarez teaches the step of wherein said adapter program converting the data structure comprises said adapter program manipulating input and output array references in the request (parameters will be passed back to Perl, col. 9 lines 50 – 60).

27. **As to claim 36**, Nevarez teaches the step of wherein the adapter program

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converting the data structure comprises the adapter program converting data structures to be substantially compliant with a C programming language. (col. 9 lines 40 – 67).

28. **As to claim 37**, Nevarez teaches the step of converting a requested field list into a CORBA equivalent list (col. 10 lines 1 – 20 and col. 7 lines 25 – 50).

Response to Arguments

29. Applicant's arguments filed on 12/13/04 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is (571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ph
May 12, 2005


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